THURSDAY, DECEMBER 30, 1875

MONTEIRO'S ANGOLA

Angola and the River Congo. By Joachim John Monteiro. Two vols., with map and illustrations. (London: Macmillan and Co., 1875.)

LTHOUGH Angola is one of the oldest, if not the oldest, European colony in Africa, there are probably few other discovered regions in that continent about which English readers at least know so little, and we suspect that the Portuguese themselves know even less about its people, its productions, and its physical geography. And yet it is about four hundred years since the Portuguese planted their first colony on the coast. there are a number of memoirs of old date, in Portuguese and in English, relating to the country, including the narrative of quaint Andrew Battell, who was for years a prisoner in Angola; but these are all pre-scientific. Recent travellers have told us a good deal about the lower Congo, and Burton, as we recently noticed, made brief visits to some of the Portuguese settlements further south, and in his own way has told us much worth knowing. Henceforth, however, there can be no doubt that Mr. Monteiro's work will be regarded as the authority on the country, more especially when it is supplemented by the various memoirs on the natural history of Angola which he has contributed to the proceedings of the Linnean and other societies, and to scientific journals. Mr. Monteiro spent many years in the country, evidently in connection with mining operations, and during that time had opportunities of visiting and exploring most if not all of the principal districts from the Congo to Mossamedes, frequently penetrating many miles inland. Mr. Monteiro is an Associate of the Royal School of Mines, and his work proves him to be well qualified not only for geographical exploration, but for the investigation of the natural history and physical conditions of a country. He is evidently quite at home in geology, zoology, botany, and meteorology, and has a skilled eye for the points which a traveller ought to note in the natives whom he visits. To the natural history of the country, our naturalist readers no doubt know, Mr. Monteiro has made several important contributions. On the Portuguese settlements and colonists, on the various native tribes, on the geographical and physical features, and on the natural history of Angola the work before us contains such abundant information, that no one but a specialist need go further to obtain a satisfactory knowledge of the country in all its aspects. Mr. Monteiro writes in a simple, straightforward style, indulges but little in speculation, conjecture, or moralising, and every page is so full of interesting and important facts, clearly told, that the reader will feel constantly in a state of satisfied enjoyment. Most of the information in the work has been obtained at first hand: in the few instances where it is otherwise Mr. Monteiro is careful to point out the source and its value. So far as a full and trustworthy account of Angola is concerned, it seems to us that it would be difficult to supersede the work before us.

The name Angola Mr. Monteiro applies to all the country from the Congo to Mossamedes, a distance of about nine degrees of latitude. On the north, however,

the Portuguese possessions extend no farther than Ambriz, a good many miles south of the Congo, while on the south they extend as far as Cape Frio in 18° 20' S. lat. The author chooses the Congo as the northern boundary, that being the strong natural limit of the climate, fauna, and ethnology of the region. Chapter I. contains a brief account of the history of Angola to the beginning of the present century, translated from the Portuguese of Feo Cardozo. Throughout the work Mr. Monteiro gives an account of all the principal Portuguese settlements along the coast, and has frequent occasion to refer to the inland districts presided over by a chefe or sub-governor. The general impression left on the reader will be one of utter mismanagement, pusillanimity, and oppression. country as a whole is a fine one, capable of extensive development in many directions, and might be made an extremely valuable possession to Portugal, if the most ordinary care were bestowed upon it. The officials are all underpaid, and with very few exceptions are as corrupt as can well be imagined. The poor natives are plundered on all hands, and a country which might be made to add materially to the resources of the world, is almost entirely profitless through being in the hands of a people too ignorant and too lazy to turn it to any account.

There are a considerable number of tribes scattered up and down the region described by Mr. Monteiro. These tribes vary considerably in language, customs, physique, and intelligence, none of them, however, standing very high in the last-mentioned attribute. The author had many opportunities of studying the natives of Angola, and the ethnologist will find much valuable information in the Mr. Monteiro has but a poor opinion of the capacity of the African, and but little hope for his future He believes that all the efforts hitherto made to elevate and civilise him have failed, and his conclusions on the subject coincide essentially with those of Burton and with those of most other authorities who have examined it dispassionately. Unless under the judicious superintendence of the white man, Mr. Monteiro does not believe there is any hope of the negro ever attaining to any considerable degree of civilisation; and as whites can flourish in very few parts of Africa, "the negro must ever remain as he has always been, and as he is at the present day." Moreover, any advantages which the negro has hitherto derived from the white races have been more than counterbalanced "by the creation of an amount of vice and immorality unknown to the negro in his native or unsophisticated state." Many, no doubt, will be inclined to think that Mr. Monteiro takes much too hopeless a view of the future of Africa and Africans. It is certainly hard to believe that no means will ever be discovered of developing the resources of a country which might be made to yield so much. No doubt, if this is ever to be accomplished, it must be mostly by means of native labour under white superintendence. But with the author's general conclusions on the African question we have no doubt that all who have dispassionately considered must in the main agree. Angola itself is on the whole a comparatively healthy region, and, with ordinary care, Europeans need have little difficulty in getting acclimatised. On this subject, Mr. Monteiro gives some valuable hints; he is of the same opinion as Capt. Burton as to the use of stimulants in tropical countries; from his own experience and from observations, he infers that their judiciously moderate use is indispensable to complete health.

With regard to the almost hopeless stupidity of the negro, the author gives a curious instance. He employed a number of natives while mining malachite at Bembe. He says :-

"It was great trouble to teach the natives the use of the pick and shovel, and the wheelbarrow was a special difficulty and stumbling-block; -when not carrying it on

"The character of the negro is principally distinguished not so much by the presence of positively bad, as by the absence of good qualities, and of feelings and emotions that we can hardly understand or realise to be wanting in human nature. It is hardly correct to describe the negro intellect as debased and sunken, but rather as belonging to an arrested stage. There is nothing inconsistent in this it is, on the contrary, perfectly consistent with what we have seen to be their physical nature. It would be very singular ndeed if a peculiar adaptation for resisting

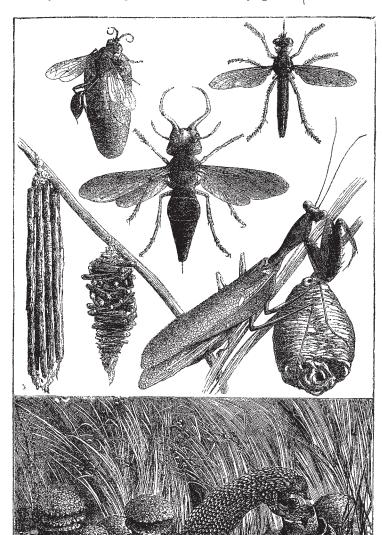
so perfectly the malignant influences of the climate of tropical Africa, the result of an inferior physical organisation, was unaccompanied by a corresponding inferiority of mental constitution. It is only on the theory of 'Natural Selection, or the survival of the fittest' to resist the baneful influence of the climate through successive and thousands of generations
— the 'fittest' being those of greatest physical insensibility - that the present fever-resisting, miasma-proof negro has been produced, and his character can only be explained in the corresponding and accompanying retardation or arrest of development of his intellect."

In his second chapter the author gives a very clear account of the physical conditions of Angola, whose aspect, productions, and climate present considerable variety both north and south, and from west to east. Contrary to the generally received opinion, Mr. Monteiro doubts whether the Congo, with its vast body of water and rapid current, drains any large extent of country in an easterly direction to the interior, beyond the first rapids. He is inclined to believe that the river, or its principal affluent, after going in a N.E. direction for a comparatively short distance, bends to the southward and will be found to run for many degrees in that direction. It would be vain to theorise on the question, which happily may be set at rest by Lieut. Cameron, who is expected to arrive in this country in a week or two; the information he must have obtained about the watersheds between the Zambesi [and the Congo may enable us to form some notion of the upper course and approximate length of the river. Mr. Monteiro's general conclusion seems, however, at present a very probable one. "From the few and insignificant streams traversing Angola to the coast, which at most only reach sufficiently far inland to have their source at the third elevation or central plateau, it would seem that a great central depression or fall drains the waters

of this part of Africa in either an easterly or southerly

direction." The alternation of swamp and dense forest which is characteristic of so much of the West Coast of Africa, ends completely on arriving at the River Congo, and a total change, Mr. Monteiro tells us, to the comparatively arid country of Angola takes place.

"I may say that, without exception, from the River



Pelopœus spirifex and nest—Devil of the road (Synagris cornuta)—Dasylus sp.—Caterpillars' nests—Mantis and nest—Manis multiscutatum and Ants' nests.

their heads, which they always did when it was empty, two or three would carry it; but the most amusing manner in which I saw it used, was once where a black was holding up the handles, but not pushing at all, whilst another in front was walking backward, and turning the wheel round towards him with his hands.

The following bold and ingenious theory as to the character of the native Africans is at least worthy of consideration :--

Congo to Mossamedes no dense forest is seen from the sea, and from thence not a single tree, it is said, for hundreds of miles to the Orange River. A little mangrove, lining the insignificant rivers and low places in their vicinity, is all that varies the open scrub, of which the giant Adansonios and Euphorbias have taken, as it were, exclusive possession. Nowhere on the coast is seen more than an indication of the wonderful vegetation, or varied beauty and fertility, which generally begins at a distance of from thirty to sixty miles inland.

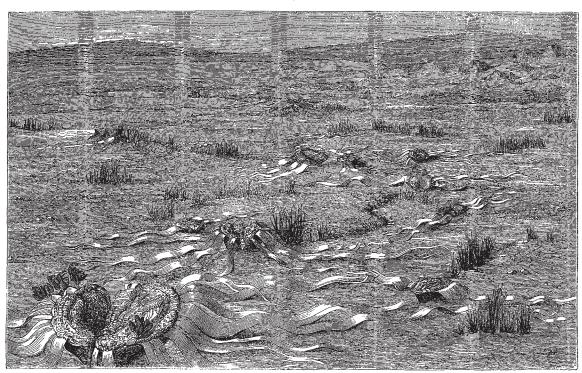
"At this distance, a ridge or hilly range runs along the whole length of Angola, forming the first elevation; a second elevation succeeds it at about an equal distance; and a third, at perhaps twice the distance again, lands us

on the central high plateau of Africa."

Each of these successive elevations is accompanied by a corresponding change in the character of the vegetation. This varied vegetation Mr. Monteiro describes

with considerable minuteness as he makes his way from the Congo to Mossamedes, stopping at many places to make minute explorations of the country around. As we have said, Mr. Monteiro has chosen the Congo as the northern boundary of Angola, because it presents a wellmarked line of division in respect of climate, fauna, nature, and customs, between Angola and the rest of the west coast. He refers to some very remarkable facts in confirmation of this. The Congo is the southern limit of the gorilla and of several species of monkeys and even of birds, butterflies, and insects. He says truly that it would well repay a naturalist to investigate the number of species the Congo cuts off; it is a pity he had not time to undertake the work himself; no one could be more competent.

With regard to the universal fetishism of the natives,



Welwitschias growing in a plain near Mossamedes.

Mr. Monteiro gives abundant intormation, much of which we are sure will shed a new light on this degrading and depressing superstition. It seems almost impossible to eradicate it. Many of the Angolan tribes were converted and educated by the old Portuguese missionaries, and to this day many of the tribes transmit the "trick," as Mr. Monteiro calls it, of reading and writing. But this seems to have had no effect in abolishing fetishism, but on the contrary has rather furnished it with new materials on which to flourish. In some respects fetishism seems to resemble the Polynesian "tabu." "Fetish" is often used as equivalent to charm or magic, and many objects are used by the natives to carry about with them to be used as charms against evil, and in some places rude houses are built as a dwelling for a fetish, who may be represented by a rude image. But besides this it is possible to fetish a person, or thing, or animal, in the same way as

in some of the Pacific Islands certain objects may be tabu. Certain animals are fetish, and these a native dare not injure; and indeed it seems possible and easy to render anything whatever fetish, and once at least Mr. Monteiro took legitimate advantage of the custom for his own protection. Their fetishes have, however, no power for good or evil over the white man, who belongs to another and more powerful god than do the natives, who themselves received the idea of God or Creator from the Portuguese missionaries.

The Celis and Mucelis, tribes dwelling inland from Nova Redondo to the north of Benguella, are, Mr. Monteiro believes, the only cannibals in Angola; the Quinbundos, a superior tribe to the south of the Quanza, are not so, "though a traveller who made a few days' trip up the river has asserted they are." The natives on the Quanza and to the south for many miles are great beekeepers, constructing hives which they keep in trees. Some families possess as many as 300 or 400 hives.

About Mossamedes the Welwitschia mirabilis is found growing, and the country about the river San Nicolau, 14° S. lat., seems to be its northern limit. Mr. Monteiro sent home specimens of the plant, flower, and cones, which supplied Dr. Hooker with some of the materials for his monograph on the plant.

It is impossible in our limited space to give any adequate idea of the abundant information contained in these volumes; we can only assure our readers that if they wish for satisfactory information about the country, the people, the fauna, the flora, the geology, the mineralogy of Angola, they will find it here. While an excellent idea of the country as a whole will be obtained, the author gives minute details of a very large number of animals and plants, of the geology of certain parts, and as to the various minerals which may be obtained, and especially concerning the various tribes, their characteristics, customs, implements, and other matters. The numerous illustrations add not a little to the value of the work.

WORKS ON THE BLOWPIPE

An Introduction to the Use of the Mouth-Blowpipe. By Dr. Theodore Scheerer and H. F. Blanford, F.G.S. Third Edition. (London: Frederick Norgate, 1875.)

Pyrology; or, Fire Chemistry. By Major W. A. Ross, R.A. (London: E. and F. N. Spon, 1875.)

THE first of these volumes is a third edition of a well-known little work, the second edition of which was published in 1864. We think that it still holds its place as the best elementary book on the application of the blowpipe to the determination of minerals, although but few changes have been made in the text.

Major Ross's work on "Pyrology" is an imposing volume illustrated with coloured lithographs. The preface looks more like an article in a well-known daily paper than the opening of a scientific treatise, for in the space of a few pages the names of Neri, Cassius, Pattinson, Herbert Spencer, Bacon, Sir W. Hamilton, Hume, Kant, Mrs. Marcet, Walpole, Bonaparte, Grimaldo, and Hook are alluded to, often in a flippant and tiresome way. The introduction is much in the same style, and we are told that "precisely the same operations of the mind are necessary to analyse a murder or a miracle as a mineral," and that "the general, the detective or the logician deduces probabilities from facts . . . and the physicist or pyrologist has first to elicit facts, which he calls reactions, from which probabilities are concluded." A passage which occurs on page 10 deserves notice. In it the author states that "the various spectra in the orange, green, violet, and indigo, &c., are due to the vapour of substances composed of combinations of hydrogen, oxygen and carbon, and thus that such lines seen in the solar spectrum should scarcely without further evidence be, as they now generally are, attributed to the vapour of burning terrestrial metals in the solar photosphere, but that our metals should rather be supposed to be composed of these elements in different proportions." Spectroscopists will hardly consider the evidence he adduces in support

of this hypothesis to be satisfactory, for it rests on no better foundation than the fact that when small fragments of zinc, lead, silver, aluminium and other metals are heated before the blowpipe flame in a bead of phosphoric acid each metal with the exception of tin, gold, platinum, and mercury is decomposed into a brickred oxide, a brownish black gelatinous mass, and bubbles of some gas which smells like phosphuretted hydrogen.

An interesting and careful history of the use of the blowpipe is then given, at the conclusion of which the author alludes to his own labours, and after a careful examination of the work, we are convinced that we shall best do him justice by stating the principal observa-tions that he claims as his own. These are—a method of detecting soda by means of the orange colour which is imparted to the "pure pyrochrome of boric acid." Potash, on the other hand, being detected by the blue colour produced by breathing on a bead of boric acid which has been blown into a thin vesicle, and in which the mineral has been fused. The separation and detection of "lime and the alkaline earths" by fusion in a bead of boric acid, when the oxides congest into small balls which float in the clear bead. The use of phosphoric acid as a solvent for certain metals, such as platinum and gold, and the adoption of sheet aluminium as a support, which, among other advantages, facilitates the roasting of arsenides and sulphides. In addition to these there are between thirty and forty other "novelties" which space will not permit us to enumerate.

The nomenclature employed in the work is rather bewildering; for instance, a flame having a conical shape is termed "a pyrocone;" a non-luminous flame tinged with colour "a pyrochrome;" and the crystallisation of substances from a state of fusion, is called "crystallignation." It will be evident that such terms become almost irritating when combined into words like "Ellychnine Pyrocone," which means a candle flame tinged with colour.

The tables for blowpipe analysis constitute a "Pyroqualitative Indicating Chart," which Major Ross has divided into fourteen columns. Taking nickel, to which he specially directs attention as showing the merits of the table, we find that its reactions are described under three heads. First, with phosphoric acid an amber brown bead or, with little of the substance, an orange bead is produced. Second, with boric acid a bead containing green fragments is obtained in the O.P. (oxyhydrogen pyrocone), and metallic fragments in the H.P. (hydrocarbonous pyrocone), and third, when the substance is heated on an aluminium fusing tray in a "charcoal mortar" before the O.P. a green hairy mass is produced. Anyone familiar with blowpipe work will be able at once to compare mentally these directions with Plattner's concise and well-known tables which, by the by, are printed in the appendix. In addition to the well known reagents he employs many of unknown or uncertain composition, such as potassic tungstic borate, mangani cobalt solution, and thus complicates effects. We may give the following as an example of the author's chemistry:- "Sulphides are instantly detected upon it (aluminium foil) by fusing them with a small fragment of soda, and saturating the hot mass with a drop or two of water, when an inky black,